

Remarks

The Office Action dated June 28, 2005, and made final, has been carefully reviewed and the foregoing amendment has been made in consequence thereof.

Claims 1-5, 7-58, and 60-76 are pending in this application. Claims 1-5, 7-58, and 60-76 stand rejected. Claims 86-102 and 106-120 have been canceled.

In accordance with 37 C.F.R. 1.136(a), a two month extension of time is submitted herewith to extend the due date of the response to the Office Action dated June 28, 2005, for the above-identified patent application from September 28, 2005, through and including November 28, 2005. In accordance with 37 C.F.R. 1.17(a), authorization to charge a deposit account in the amount of \$450.00 to cover this extension of time request also is submitted herewith.

The rejection of Claims 1-5, 7-21, 23-35, 37-58, 60-64, 66-72, and 74-76 under 35 U.S.C. § 103(a) as being unpatentable over Palusamy et al. (US 5,311,562) in view of Palusamy et al. (US 4,908,775), hereafter referred to as "Palusamy 2", is respectfully traversed.

Palusamy et al. describes an integrated plant monitoring and diagnostic system for shared use by plant operations, plant maintenance, and plant engineering departments. The system collects and monitors operating parameter data via sensors, generates prioritized condition reports including present conditions and anticipated impending conditions to be addressed by preventative maintenance or operational changes, and provides users with background technical and historical data that is ranked and cross referenced by related operational systems and related articles of equipment.

Palusamy 2 describes a method for monitoring and analyzing, on an on-line basis, the fatigue accumulated by components and systems subjected to fluid flow, and thermal and

pressure transients in a nuclear reactor. The method includes presenting to plant engineers a representation of the margin between current fatigue accumulation and a value of fatigue accumulation that indicates repair, replacement, or refurbishment of the component or system is necessary. The method also includes techniques for providing a determination of stresses at plant locations critical to fatigue, the determination being made through measurements of plant processes and response parameters.

Claim 1 of the present application recites a method for managing internal components of nuclear reactor plants using a network-based system. The method includes the steps of developing inspection recommendations for specific internal components based on information received and information stored in the database, determining cracking susceptibility for specific internal component welds based on information received and information stored in the database, where the cracking susceptibility determination is based on a base material of the internal component, a weld filler material, and a weld susceptibility index based on a configuration of a weld and historical information of similar internal components in similar reactors, developing contingency options for repair or mitigation of specific internal components based on the cracking susceptibility of specific component welds, and generating contingency outage schedules for the contingency options.

Palusamy et al. and Palusamy 2, alone or in combination, do not describe nor suggest a method for managing internal components of nuclear reactor plants as recited in Claim 1. Particularly, Palusamy et al. and Palusamy 2, alone or in combination, do not describe nor suggest a method that includes the steps of developing inspection recommendations for specific internal components based on information received and information stored in the database,

determining cracking susceptibility for specific internal component welds based on information received and information stored in the database wherein the cracking susceptibility determination is based on a base material of the internal component, a weld filler material, and a weld susceptibility index based on a configuration of a weld and historical information of similar internal components in similar reactors, developing contingency options for repair or mitigation of specific internal component welds based on the cracking susceptibility of specific components, and generating contingency outage schedules for the contingency options.

Specifically, the Office Action has admitted that Palusamy et al. do not teach the method step determining cracking susceptibility for specific internal component welds based on information received and information stored in the database wherein the cracking susceptibility determination is based on a base material of the internal component, a weld filler material, and a weld susceptibility index based on a configuration of a weld and historical information of similar internal components in similar reactors. The Office Action has also admitted that Palusamy 2 does not describe determining cracking susceptibility based on weld material. Applicants also submit that Palusamy 2 do not describe nor suggest determining cracking susceptibility for any specific internal component welds based on any criteria. Palusamy 2 describe stress and fatigue calculations in vague generalities. For example, Palusamy 2 describe at Col. 4, lines 15-22, that component tracker software modules can be based on fatigue crack growth, or any other technically valid theoretical construct for determination of accumulated fatigue. There is no description of determining cracking susceptibility of specific internal component welds. Accordingly, Applicants submit that Claim 1 is patentable over Palusamy et al. and Palusamy 2, alone or in combination.

Claims 2-5, 7-21 and 23-32 depend from independent Claim 1. When the recitations of dependent Claims 2-5, 7-21 and 23-32 are considered in combination with the recitations of Claim 1, Applicants respectfully submit that Claims 2-5, 7-21 and 23-32 likewise are patentable over Palusamy et al. and Palusamy 2, alone or in combination.

Claim 33 recites a network-based system for managing assets that includes a server system configured to develop inspection recommendations for specific internal components based on information received and information stored in the database, determine cracking susceptibility for specific internal component welds based on information received and information stored in the database, wherein the cracking susceptibility determination is based on a base material of the internal component, a weld filler material, and a weld susceptibility index based on a configuration of a weld and historical information of similar internal components in similar reactors, develop contingency options for repair or mitigation of specific internal component welds based on the cracking susceptibility of specific components, and generate contingency outage schedules for the contingency options.

Palusamy et al. and Palusamy 2, alone or in combination, do not describe nor suggest a network-based system for managing assets as recited in Claim 33. Particularly, and at least for the reasons set forth above, Palusamy et al. and Palusamy 2, alone or in combination, do not describe nor suggest a network-based system for managing assets that includes a server system configured to develop inspection recommendations for specific internal components based on information received and information stored in the database, determine cracking susceptibility for specific internal component welds based on information received and information stored in the database, wherein the cracking susceptibility determination is based on a base material of the

internal component, a weld filler material, and a weld susceptibility index based on a configuration of a weld and historical information of similar internal components in similar reactors, develop contingency options for repair or mitigation of specific internal component welds based on the cracking susceptibility of specific components, and generate contingency outage schedules for the contingency options. Specifically, the Office Action has admitted that Palusamy et al. do not teach the method step determining cracking susceptibility for specific internal component welds based on information received and information stored in the database wherein the cracking susceptibility determination is based on a base material of the internal component, a weld filler material, and a weld susceptibility index based on a configuration of a weld and historical information of similar internal components in similar reactors. The Office Action has also admitted that Palusamy 2 does not describe determining cracking susceptibility based on weld material. Applicants also submit that Palusamy 2 do not describe nor suggest determining cracking susceptibility for any specific internal component welds based on any criteria. Palusamy 2 describe stress and fatigue calculations in vague generalities. For example, Palusamy 2 describe at Col. 4, lines 15-22, that component tracker software modules can be based on fatigue crack growth, or any other technically valid theoretical construct for determination of accumulated fatigue. There is no description of determining cracking susceptibility of specific internal component welds. Accordingly, Applicants submit that Claim 33 is patentable over Palusamy et al. and Palusamy 2, alone or in combination.

Claims 34-35 and 37-58, 60-64, 66-72, and 74-76 depend from independent Claim 33. When the recitations of dependent Claims 34-35 and 37-58, 60-64, 66-72, and 74-76 are considered in combination with the recitations of Claim 33, Applicants respectfully submit that

Claims 34-35 and 37-58, 60-64, 66-72, and 74-76 likewise are patentable over Spriggs et al. and Maguire et al., alone or in combination.

For the reasons set forth above, Applicants respectfully request that the Section 103(a) rejection of Claims 1-5, 7-21, 23-35, 37-58, 60-64, 66-72, and 74-76 be withdrawn.

The rejection of Claims 22, 36, 65, and 73 under 35 U.S.C. § 103(a) as being unpatentable over Palusamy et al. in view of Palusamy 2, and further in view of Bodo et al. (US 6,122,239) is respectfully traversed.

At least for the reasons explained above, independent Claims 1 and 33 are submitted to be patentable over Palusamy et al. and Palusamy 2, alone or in combination.

Bodo et al. is cited for teaching a method and system where the sending component functions in response to a voice command. Bodo et al. is not cited for, and does not teach a method that includes the steps of developing inspection recommendations for specific internal components based on information received and information stored in the database, determining cracking susceptibility for specific internal component welds based on information received and information stored in the database, wherein the cracking susceptibility determination is based on a base material of the internal component, a weld filler material, and a weld susceptibility index based on a configuration of a weld and historical information of similar internal components in similar reactors, and developing contingency options for repair or mitigation of specific internal component welds. Also, Bodo et al. is not cited for, and does not teach a server system configured to develop inspection recommendations for specific internal components based on information received and information stored in the database, determine cracking susceptibility for specific internal component welds based on information received and information stored in

the database, wherein the cracking susceptibility determination is based on a base material of the internal component, a weld filler material, and a weld susceptibility index based on a configuration of a weld and historical information of similar internal components in similar reactors, and develop contingency options for repair or mitigation of specific internal component welds. As explained above, Palusamy et al. and Palusamy 2, alone or in combination, do not describe nor suggest such a method or such a system.

Palusamy et al., Palusamy 2, and Bodo et al., alone or in combination, do not describe nor suggest a method for managing internal components of nuclear reactor plants as recited in Claim 1 or a network-based system for managing assets as recited in Claim 33. Particularly, and as explained above, Palusamy et al., Palusamy 2, and Bodo et al., alone or in combination, do not describe nor suggest a method that includes the steps of developing inspection recommendations for specific internal components based on information received and information stored in the database, determining cracking susceptibility for specific internal component welds based on information received and information stored in the database, wherein the cracking susceptibility determination is based on a base material of the internal component, a weld filler material, and a weld susceptibility index based on a configuration of a weld and historical information of similar internal components in similar reactors, and developing contingency options for repair or mitigation of specific internal component welds. Further, Palusamy et al., Palusamy 2, and Bodo et al., alone or in combination, do not describe nor suggest a server system configured to develop inspection recommendations for specific internal components based on information received and information stored in the database, determine cracking susceptibility for specific internal component welds based on information received and information stored in the database, wherein

the cracking susceptibility determination is based on a base material of the internal component, a weld filler material, and a weld susceptibility index based on a configuration of a weld and historical information of similar internal components in similar reactors, and develop contingency options for repair or mitigation of specific internal component welds. Accordingly, Applicants submit that independent Claims 1 and 33 are patentable over Palusamy et al., Palusamy 2, and Bodo et al., alone or in combination.

Claim 22 depends from independent Claim 1 and Claims 36, 65, and 73 depend from independent Claim 33. When the recitations of dependent Claims 22 and 36, 65, and 73 are considered in combination with the recitations of Claims 1 and 33 respectively, Applicants respectfully submit that Claims 22, 36, 65, and 73 likewise are patentable over Palusamy et al., Palusamy 2, and Bodo et al., alone or in combination.

For the reasons set forth above, Applicants respectfully request that the Section 103(a) rejection of Claims 22, 36, 65, and 73 be withdrawn.

In view of the foregoing amendments and remarks, all the claims now active in this application are believed to be in condition for allowance. Favorable action is respectfully solicited.

Respectfully submitted,



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